

# GLOBAL COMM

## High Frequency invaluable to aircrews, DoD

By Tech. Sgt. Kent Findlay

HQ AMC/A66G

**SCOTT AIR FORCE BASE, ILL.** — Now more than ever before, the High Frequency Global Communications System has become a cost effective, networked solution for providing near global communications coverage for both voice and data to the aircrew.

The HF Global network is an Air Force acquired and managed system that supports a myriad of Department of Defense beyond-line-of-sight communications missions.

The high-power HF network provides long-range voice coverage of approximately 2,000 miles and data coverage of 2,500 miles from each of its 15 worldwide HF stations.

Primary customers of the HF Global Comm System are the Air Force's Air Mobility Command, Air Combat Command, Air Force Space Command, and the Navy's E-6 fleet. HFGCS also provides alert broadcast of Emergency Action Messages. EAMs can be sent over the HFGCS network directly from United States Strategic Command through a dedicated circuit to the CNCS, or from the CNCS after receiving the alert from any of several means.

A major improvement to HF is Automatic Link Establishment. ALE eliminates the need for operator assistance to complete a call or phone patch. ALE automatically selects the best frequency and ground station and makes the connection, for both voice and data — users receive the optimum connection available based on location and time of day.

ALE also provides HF e-mail messaging capability over the HF Global network; making it possible to send and receive classified e-mail messages to and from appropriately equipped aircraft and ground users. The HF e-mail software also possesses a store and forward ground feature, which holds an e-mail until the addressee aircraft comes up in the HF ALE mode. The e-mail system then makes the connection and transmits the message. A typical 5K e-mail file can be transferred in approximately two minutes. Most importantly, it is economical to use since there are no associated per message costs. Next Generation ALE will provide two signif-

icant capabilities: a run silent mode for aircrews on special operations needing to limit outgoing radio transmissions. It will also have the capability to automatically set the radio for incoming voice or data to ease aircrew operations workload and improve the success rate for connectivity.

As the Lead Command for Global HF, HQ AMC/A6 is an advocate for expanding access to the HF Global network to include other users such as the Defense Threat Reduction Agency, FEMA, NSA, AF Auxiliary/Civil Air Patrol, and special DoD missions requiring long-range communications. The HF Global network program office is working with the Global Information Grid and Teleport program offices to ensure future HF communications capabilities are integrated into the GIG and Teleport architectures.

HFGCS is striving to increase reliability and survivability; an alternate CNCS location is being pursued to ensure uninterrupted service. But even more significant to HF voice communications is the HF Digital Voice modification, which will eliminate the static historically associated with HF communications. In the future, the HFGCS will be upgraded to allow STRATCOM and/or airborne command posts to send out alerts through a DSN connection to any of the HF Global network stations.

The HFGCS network is a capability available today and will be for years to come.

The planned improvement initiatives to the HFGCS will provide a network-based infrastructure, enabling clearer, more reliable, secure, and expanded information services via the High Frequency spectrum.

